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THE MEDICAL MANAGEMENT OF ULCERATIVE COLITIS AND REGIONAL ENTERITIS*

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IN both regional enteritis and chronic ulcerative colitis, the methods and limitations of medical management are still poorly defined. In the therapy of each disease there are certain fundamental procedures that have been generally adopted, and a very large number of remedies, the value of which is controversial. The purpose of this paper is to reemphasize the area of agreement, and from this to formulate a basic therapeutic program, to which other procedures may be added as their efficacy is proven.

Ulcerative colitis has sometimes been called a "wastebasket diagnosis." It need not be so, unless we fail to exclude from this category a number of conditions more or less similar:

1. Proximal, regional, or right-sided ulcerative colitis – We are concerned only with the more common, distal form of ulcerative colitis which begins in the rectum or sigmoid and spreads in retrograde fashion.

2. Colitis due to specific microbial, chemical, or physical agents – *E. histolytica*, *Shigella* organisms, and the virus of lymphogranuloma

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venereum. Intestinal tuberculosis and colitis due to *Schistosoma mansoni* may occasionally cause confusion. Certain acute cases may be due to toxic reactions to mercury and gold compounds, to some of the newer antibiotics such as aureomycin and terramycin, and to radiation injury.

3. The clear cut instances of acute hemorrhagic enterocolitis associated with food allergy. These are best classified as Henoch-Schoenlein's purpura.

With all these possibilities excluded, we have a large number of cases which we can truly call *chronic nonspecific ulcerative colitis*, and which are very much alike clinically and pathologically. It is still quite likely that this apparently monolithic entity is the result of a number of disease processes of diverse etiology, which resemble each other in their end stages. In like manner, in a case of renal disease, the pathologist is often unable to say whether the contracted kidney he finds at autopsy is the result of glomerulonephritis, pyelonephritis, or nephrosclerosis. So in planning for rational medical therapy, we are uncertain about the etiology of the disease.

Although he is fully aware of these gaps in our knowledge, the clinician can properly base his treatment of the patient upon four observations which are easily made at the bedside:

1. The patient has a hyperactive colon.
2. The colon is the site of a serious inflammation.
3. The patient is usually nutritionally depleted.
4. He is fearful, depressed, and discouraged, and shows infantile traits in greater or lesser degree.

The value of rest for the hyperactive colon is clearly shown in the general improvement in well being which usually follows ileostomy. The same object is usually attained, though less directly, by medical management. The first consideration is rest for the patient as a whole, with longer hours of sleep, afternoon naps, lessened responsibilities, and planned diversional or occupational therapy. Complete inactivity is usually undesirable – when we prescribe *rest* we must not prescribe *restlessness*. The effect of nervous stimuli upon the hyperactive colon can be inhibited to some extent by atropine (1 mg.) or banthine (100 mg.), but no antispasmodic is fully effective. Such agents are most beneficial when given at bed time, together with heavy barbiturate sedation. As the opiates induce colonic spasm, they are usually contraindicated. Rest for the colon also implies the prohibition of cold fluids

in large quantity, as well as the restriction of residue and seasoning in the diet. The value of dietary restriction is often exaggerated, and must be balanced against the greater need for adequate nutrition.

The colon in ulcerative colitis is the site of one of the most colossal inflammations in clinical medicine. It can best be compared to a large infected wound, or an untreated third degree burn. The fecal nitrogen loss is high, and is largely due to the colonic exudate, as it is not rapidly diminished during total abstinence from food. The stools are loaded with dead and dying leukocytes, which incidentally are the apparent source of their high lysozyme activity. The circulating blood in many cases shows large numbers of immature leukocytes, and the bone marrow findings may further indicate a leukemoid reaction. The bacteria involved are saprophytic, growing luxuriantly in the necrotic tissue. The predominant organisms may be inhibited for short periods by the sulfonamides, streptomycin, aureomycin, terramycin, and chloramphenicol. Thus, in a case marked by fever, high leukocytosis, prostration, and rapid worsening of intestinal symptoms, the balance between microbial invasion and host resistance may be momentarily tipped in favor of the host. In almost every instance, however, drug-resistant bacteria grow out after three weeks or so, and interrupted therapy is thus preferable to continuous therapy.

Although in other respects (see below) therapy with corticotropin (ACTH) may be beneficial, the effects of this agent upon the process of inflammation must be kept in mind. In experimental animals and in man it has been shown to inhibit the cellular reactions to injury, and to delay the healing of wounds. As the inflammation in ulcerative colitis is often an acute exudative process, with little fibrosis and much tissue destruction, the effects of corticotropin may be undesirable. This has been suggested, but not proven, by the frequent occurrence of peritonitis and colonic perforation during corticotropin therapy.

There is nothing to indicate that the average patient with ulcerative colitis is malnourished before or in the early stages of his illness. Yet most patients *become* malnourished from the ravages of the disease, and the repair of these losses is an important part of medical therapy. The diet must be palatable and attractive, and must contain an abundance of all important nutritive elements. This is often difficult to achieve in patients with faltering appetites, and in the face of desirable restrictions of residue and seasoning. In general, smaller meals with high caloric interval

feedings are desirable. Hyperalimentation with protein foods is helpful. This is best accomplished not by protein hydrolysates, but by milk drinks enriched with powdered milk or powdered egg and suitably flavored. These can be well tolerated by most individuals if they are not cold and not taken too rapidly. When the condition of the skin and mucous membranes is suggestive of specific vitamin deficiency, and when there is anemia or hypocalcemia, specific vitamin and mineral supplements are indicated. Iron therapy is of course of some value for the anemia, but the response is usually slow because of the co-existing infection. Intravenous saccharated iron oxide (Feojection®) occasionally will bring improvement where oral iron has failed. When the need for correction of anemia is urgent, a normal blood count should be established rapidly by transfusion. I can see no evidence that small transfusions, and transfusion insufficient to maintain a satisfactory level of hemoglobin, have any value in these patients.

The particular role of corticotropin (ACTH) and cortisone in the treatment of ulcerative colitis is complicated and controversial. The adverse effects of corticotropin on acute inflammations have already been discussed. As both of these agents stimulate protein catabolism, one would not expect them to benefit a malnourished individual. Yet their use is often associated with striking gain in weight, apparently due to greatly increased appetite. This in turn seems to be related to the characteristic sense of well being or actual euphoria so often induced by these hormones. At times these effects, combined with energetic and intelligent management of the patient as a person (see below) can produce a lasting remission. Hence in cases not acutely ill, but resistant to more conservative forms of treatment, a three- to six-week trial of these agents is indicated.

There are at present strong indications that dysfunction of the colon associated with emotional conflict is of primary importance in the etiology of ulcerative colitis. Whether this is true or not, the life stresses and the emotional reactions of the patient are a vital part of the clinical problem, and their management is essential to the recovery of the patient and the prevention of relapses. The typical patient with colitis is intelligent and sensitive, but emotionally immature. Often he looks younger than his stated age. When ill, his immaturity is exaggerated, he loses self confidence, and he becomes fearful, depressed and discouraged. His childish petulance and resentment are intense, but they are usually con-

cealed, while outwardly his manner is apologetic and cooperative. The onset of colitis, or its exacerbation, usually coincides with a life situation which challenges this sensitive, immature person to play a mature and responsible role in life. The physical illness may put off the crisis, but deepens his feelings of inadequacy and self-condemnation. Thus a vicious circle is established, as despair begets illness, and illness begets despair.

What *is* appropriate psychotherapy for this patient? The physician can best think of him as a child, and of himself as a parental figure. He should sense the degree of immaturity of the patient's personality, and modify his actions accordingly. In extreme cases it may be necessary to hold the patient's hand during or in contemplation of painful procedures, or to give candy as a reward for good behavior. Even if he gives the impression of a spoiled child, he will have to stay that way until a remission is achieved. With clinical improvement, however, his air of immaturity often rapidly fades.

The patient needs first to become confident that his doctor is devoted to his best interests, and will stop at nothing in order to help him. This attitude readily grows out of the frequent visits to attend to his physical needs. It is strengthened if all measures of therapy are introduced by the one physician, and identified strongly with his interest. The more painful and unpleasant procedures, however, should be done by someone else, with the personal physician in the role of the sympathetic friend. In so far as the patient sees it, not even a minor decision should be made by anyone else. This means frequent contacts at all hours, in person or by telephone. The patient's confidence is further strengthened by many acts of kindness, beyond the usual limits of medical treatment. He may receive special privileges in the hospital regarding diet and use of the telephone. A few flowers that bloom in the physician's garden, or a magazine article of special interest, are doubly valuable when brought to the bedside. Sources of irritation and minor discomfort while in the hospital may have to be suspected and dealt with, as the patient will often be slow to mention them. Gradually the larger social and economic problems become apparent, and the physician sets about correcting them, with the help of the family and of trained social workers.

All this attention helps to regenerate the patient's self-confidence, and he comes to identify himself with his doctor. This is fostered by the

discussion of common interests – such as major league baseball, music, or literature – and particularly of subjects in which the patient is the better informed or the more capable – such as a foreign country, knitting, or modern art. The physician almost never criticizes, and looks for every opportunity to compliment the patient on his dress, his intellectual attainments, or his tolerance of painful injections or bad tasting medicine. If arguments develop between the patient and other members of his family or members of the hospital or office staff, the physician must side with him in a vigorous and effective manner, regardless of the merits of the case. Amends and explanations to the injured parties can be made later. Finally, when improvement is well advanced, the physician-parent, sensing the growing maturity of his child-patient, looks for ways of loosening the ties between them. As does any good parent, he does this by encouraging a wider range of social contacts, and giving his strong approval of them.

This is the pattern of psychotherapy which has proven most effective in ulcerative colitis. It emphatically does *not* require the unearthing and the verbal going-over of deeply buried emotional conflicts. Such a process, even in the hands of expert psychoanalysts, is usually undesirable. The emotional problems have often been well handled by internists and surgeons who actually did not know they were conducting psychotherapy.

Many physicians, out of their optimism, their paternal instincts, and their sheer devotion to their patients, have achieved remarkable success in the therapy of ulcerative colitis, which others have been unable to duplicate. The therapist himself, unable to view in a detached manner the effect of his personality upon his patients, has usually attributed his success to whatever therapeutic agent he was using at the time. His colleagues, lacking his enthusiasm and optimism, have then used the same remedy with indifferent results. In this manner innumerable controversies have arisen regarding the etiology and therapy of ulcerative colitis. I shall mention only a few. On the theory that it is a deficiency disease, it has been treated in recent years with intestinal extract derived from hogs, but without consistent results. The finding of high lysozyme activity in the stools led naturally to the treatment of these cases with inhibitors of lysozyme. A long series of sulfonamide drugs has each been regarded originally as of great value in inducing remission; yet with further experience each has been relegated to a much lower place in our armamen-

tarium. Thus many therapeutic agents, first hailed with enthusiasm, have fallen into disrepute. The hopefulness and patient care with which they were originally given remain the most valuable elements in the treatment of ulcerative colitis.

Much less needs to be said about the medical therapy of *regional enteritis*. It would be fair to say that up to the present there has been no effective medical therapy for this disease. We know so little of the etiology that we cannot formulate a rational treatment. The natural history of the disease is so long, and our knowledge of it so recent, that empiricism gives us small comfort. It is customary to advise bed rest during febrile periods, modified rest otherwise; to maintain a diet low in residue, but high in protein, and to repair obvious nutritional losses, as in ulcerative colitis. We have learned to deal with life stress and emotional conflict as factors of at least secondary importance in producing disordered intestinal function. I prefer to think of these measures not as the treatment of regional enteritis, but as the treatment of the *patient* who is ill with the disease. Whatever their worth, the fact remains that while these things are being done many patients improve and some go into lasting remission.

There are still those patients with more extensive involvement of the small bowel or with more acute and severe diarrhea and vomiting, in whom a trial of the usual conservative measures fails to check the rapid clinical deterioration. The surgeon is often reluctant to operate, because so little functionally useful small bowel is left. Here the internist has, at last, another trump to play. As you know, corticotropin (ACTH) and cortisone have been used with conspicuous success in the short term management of some of these cases. After treatment periods of two to six weeks, the remissions have usually been shortlived, most patients relapsing in less than six months. There are indications, however, that remissions may be sustained by the continued use of oral cortisone.

Despite such encouraging developments, the role of the internist in the treatment of these diseases is usually less active than he would wish. He can often provide only nutritional support, relief from acutely distressing symptoms, and the conviction that a devoted friend and servant is at hand. He can do little more today for the radical cure of these patients than the physician of fifty years ago could do for pneumonia. While we strive to develop more effective therapeutic measures, we must use to the fullest those which are at hand.